US Army Corps of Engineers ®
Memphis District

ISSUE DATE: 31 May 2007

PUBLIC NOTICE

EXPIRATION DATE: 30 June 2007

PUBLIC NOTICE
U.S. ARMY CORPS OF ENGINEERS

Availability of Draft EA/FONSI
and 404 (b)(1) Evaluation

REPLY TO:
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Environmental Branch
U.S. ARMY CORPS OF ENGINEERS
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TITLE: Mississippi River Levee Seepage Control Measures

AUTHORITY: The Flood Control Act of 1928, as amended, authorizes this project.

LOCATION: The proposed seepage control project(s) are located along the Mississippi River mainline levee in Shelby County, Tennessee. The two items of work are each 1.0 miles in length. A list of relief wells by state is included as Figure 1.

TO WHOM IT MAY CONCERN: Pursuant to the National Environmental Policy Act of 1969, as amended, the U.S. Army Corps of Engineers, Memphis District, is issuing this notice with the intention of installing seepage control measures along the Mississippi River mainline levee.

PURPOSE: Seepage that occurs during flood conditions on the Mississippi River needs to be controlled in order to assure that the levee system does not fail during a project flood event. Seepage could undermine the levee if unabated. Some sand boils are already present in a few of the project areas landside of the levee.

ALTERNATIVES: There were four alternatives considered for this project (Figure 2).

Alternative 1: No Action: The no-action alternative would result in continued seepage during flood conditions. Sands and silts would be carried under the levee causing additional sand boils. This could eventually lead to levee failure during a major flood event. Failure of the levee would result in property damage and could cause human injuries and/or loss of life.

Alternative 2: Construct landside berms to control seepage: This alternative involves constructing a berm along the landside toe of the Mississippi River mainline levee to control seepage under the levee. Large quantities of borrow material would be needed to construct a seepage berm. Suitable soils would need to be obtained from borrow areas located at the project site or hauled in from an off-site location. Consequently, if the berm or borrow areas are located in wooded or farmed wetlands, adverse impacts would result. However, barring unusual circumstances, if the berm and borrow areas are located within existing prior converted agricultural lands or other non-wetland cleared lands, no impacts would occur to bottomland hardwood forests or other significant fish and wildlife habitat. In the event such unusual, site-specific circumstances were found to exist, additional NEPA consideration would be required.

Alternative 3: Install slurry trenches: This alternative involves excavating a trench along the riverside toe of the Mississippi River mainline levee, mixing the excavated soil with bentonite powder and refilling the trench with the resulting slurry. The slurry trench reduces permeability and effectively cuts off seepage under the levee. Depending on location, slurry trenches can sometimes be constructed with minimal environmental impacts.

Alternative 4: Install relief wells with associated drainage work: This alternative involves installing relief wells along the landside toe of the Mississippi River mainline levee. It sometimes requires cleanout or enlargement of existing ditches or excavation of new outlet ditches to provide adequate drainage for seep water. In the Corps' experience, installation of relief wells is usually the least environmentally damaging method of controlling seepage. Based on previous relief well projects within the Memphis District (total of 1,082 wells over 79 miles of levee) that have been constructed or designed in detail, approximately 13 acres of forested wetlands were impacted. It was determined that 0.012 wetland acre/well was impacted (includes impacts from drainage work). Proposed future work consists of 1,300 wells over 225 miles of levee. Utilizing the ratio generated from the calculations above, it has been determined that 15.6 acres of forested wetlands would be impacted (including drainage work) from future work. However, approximately 0.096 acres of wetlands will be impacted within the state of Tennessee. Approximately 0.288 acres of cleared agricultural land will be restored to bottomland hardwoods to mitigate this loss in Tennessee.

After careful consideration of all alternatives, it was determined that Alternative 1 (no action) was unacceptable because of risks to human life and property**.** If a seepage problem is not addressed, levee failure resulting in catastrophic impacts could ultimately result. Alternative 2 (landside berm) was not feasible in most cases. Construction of berms is more expensive than relief wells due to the cost of large amounts of needed borrow. On-site borrow areas may not be available and there is the potential for loss of wooded or agricultural land to borrow area construction. However, in some instances where the berm and borrow areas could be located within prior converted agricultural lands, no additional environmental impacts would occur.

Alternative 3 (slurry trench) could be the most efficient means to correct the seepage problem in some areas. However, slurry trenches can often impact bottomland hardwoods because they must be constructed on the riverside of the levee. Generally, the batture (area between levees) contains a higher percentage of bottomland hardwood forest than areas immediately outside of the levees. In instances where slurry trenches could be placed within non-wetland cleared lands, no additional adverse impacts would be likely. Alternative 4 (relief wells and ditch work) may require the removal of vegetation associated with the cleanout of existing ditches or excavation of new outlet ditches, but vegetative clearing would be very limited. Relief wells have higher maintenance costs than the other seepage control measures, but they have overall fewer adverse environmental impacts compared to other alternatives. All factors considered, Alternative 4 was selected as the preferred alternative. However, berms or slurry trenches might be constructed in certain locations if they are economically feasible and there are no significant adverse environmental impacts associated with them. Berms and slurry trenches would not be constructed in areas where their construction would result in greater adverse environmental impacts than relief wells. If it appears that a particular area is more suited to use of a berm or slurry trench, supplemental NEPA analysis would be required.

DESCRIPTION OF WORK: Since publication of the Mississippi River Mainline Levees (MRL) Enlargement and Seepage Control Supplemental Environmental Impact Statement (SEIS), dated July 1998, it has been determined that other seepage control measures need to be installed along the Mississippi River mainline levee to prevent seepage problems. Seepage control will be achieved primarily through installation of relief wells and associated drainage work. In the event that future project designs call for installation of slurry trenches or construction of berms, these trenches or berms would be primarily placed in prior converted cropland. Borrow areas would also be located within prior converted croplands or other non-wetland agricultural areas.

WATER QUALITY CERTIFICATION: The proposed work meets the requirements of Tennessee Department of Environment and Conservation's General Permit for Minor Alterations to Wetlands; thus, water quality certification and an Aquatic Resource Alteration Permit are not required.

SECTION 404 (b)(1) EVALUATION: The impact of the activity on the public interest is being evaluated in accordance with the Environmental Protection Agency guidelines pursuant to Section 404(b)(1) of the Clean Water Act.

ENDANGERED SPECIES: Coordination with the U.S. Fish and Wildlife Service has been initiated. Field investigations have been completed for each location. Three bald eagles were present at one location in Pemiscot County, Missouri, but no nests were evident in the immediate vicinity of the proposed work area. Due to the nature and timing of the work, no threatened or endangered terrestrial species or critical habitats, are expected to be impacted by the proposed work. Corps of Engineers biologists will conduct mussel surveys within any existing ditches deemed necessary during consultation with the U.S. Fish and Wildlife Service. In the event that endangered mussel species are encountered during surveys, the U.S. Fish and Wildlife Service

will be contacted and appropriate requirements under Section 7 of the ESA will be implemented at that time.

CULTURAL RESOURCES: A literature search was conducted along the Mississippi River mainline levee for the 1998 SEIS. An intensive cultural resources survey will be completed on an individual project basis prior to each work item, and the results of the surveys will be coordinated with the appropriate State Historic Preservation Officers (SHPO), Advisory Council on Historic Preservation, and Federally recognized tribes.

PUBLIC INTEREST REVIEW: The purpose of this public notice is to advise all interested parties of the proposed activities and to solicit comments and information necessary to evaluate the probable impact on the public interest. This notice is being circulated to federal, state and local agencies.

The decision to proceed with this project will be based on an evaluation of the probable impact, including cumulative impacts, of the activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The potential benefits that reasonably may be expected to accrue from the activity must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the activity will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; federal, state and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of the proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to modify or condition the project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in preparation of the final environmental assessment and/or draft environmental impact statement pursuant to the National Environmental Policy Act and are also used to determine the overall public interest of the proposed activity. **The draft environmental assessment (EA), draft finding of no significant impact (FONSI), and Section 404(b)(1) evaluation will be circulated to agencies and any other parties that respond to this notice requesting copies. Copies of these documents have been placed on the District's website at:**

http://www.mvm.usace.army.mil/regulatory/public-notices/pn.htm

PUBLIC HEARING: Any person may request in writing, within the comment period specified in this notice, that a public hearing be held to consider this proposed project. Requests for a public hearing shall clearly state the reason for holding a public hearing. The District Engineer will determine if the issues raised are substantial and whether a hearing is needed in order to reach

a decision on the project. Failure of any agency or individual to comment on this notice will be interpreted to mean that there is no objection to the proposed work.

COMMENTS OR REQUEST FOR ADDITIONAL INFORMATION: If you wish to obtain additional information or to submit comments on this proposal, contact Patricia Jones at the U.S Army Corps of Engineers, Environmental Branch (PM-E), 167 North Main Street, Room B-202, Memphis, Tennessee 38103-1894, telephone 901/544-0705 or Mike Thron at 901/544-0708. **Comments should be forwarded to this office by 30 June 2007.**

Sincerely,

David L. Reece
Chief, Environmental Branch

Enclosures

Future Study Item	From	To	Miles	Projected # of
Huffman, AR	46/49+65	47/25+00	0.5	2
Barfield, AR	56/20+00	64/35+00	8.8	88
Above Luxora, AR	64/35+00	72/0+00	7.6	53
Luxora, AR	72/0+00	79/15+00	7.5	52
Osceola, AR	79/15+00	95/13+00	7.2	50
Wilson, AR	95/13+00	103/66+00	9.1	91
Poker Point, AR (Include w/ Gammon 2)	129/10+00	134/47+00	4.1	21
Gammon 2, AR (Include w/ Poker Point)	140/2+70	141/0+00	1.0	1
Council Bend, AR	188/0+00	189/46+29	1.5	12
Helena, AR	1/0+00N	1/36+05	2.4	5
Williamson, AR	6/0+00	10/0+00	4.0	8
Westover, AR	10/0+00	20/0+00	9.3	9
Old Town, AR	20/0+00	24/0+00	4.1	12
Modoc, AR	24/0+00	30/0+00	6.0	6
Fair Landing, AR	30/0+00	34/0+00	3.5	17
Mellwood, AR	34/0+00	42/6+00	8.6	9
Above Ferguson, AR	42/6+00	50/0+00	7.5	11
AR Total(s)			92.6	447
Walls, MS	0/0+00	5/25+00	5.4	12
Norfolk, MS	7/25+00	18/22+00	11.2	8
Clack, MS	18/22+00	22/0+00	3.6	11
Commerce, MS	22/0+00	27/10+00	4.4	9
Tunica, MS	27/10+00	41/0+00	12.7	127
Flower Lake, MS	45/0+00	47/0+00	2.1	6
Trotters 2, MS	53/0+00	55/0+00	2.0	39
Delta, MS	55/0+00	68/42+00	13.0	130
Friar's Point, MS	68/42+00	76/0+00	7.0	7
Stovall, MS	79/2+00	80/0+00	0.8	3
Sherard, MS	84/4+00	89/0+10	4.9	10
MS Total(s)			67.1	362
Included in Walls, MS	5/25+00	6/25+00	1.0	4
Included in Norfolk, MS	6/25+00	7/25+00	1.0	4
TN Total(s)			2.0	8
Nash, MO	0/0+00	5/0+00	5.0	30
Nash #2, MO	17/0+00	20/0+00	3.0	9
Barnes Ridge, MO - #1	18/48+75	20/8+50	2.0	4
Barnes Ridge, MO - #2	34/19+00	35/23+80	1.0	10
Below New Madrid, MO	10N/0+00	0/0+00	10.0	50
Linda, MO	0/0+00	8/0+00	8.0	80
Stewart, MO	8/0+00	16/0+00	8.0	80
Concord, MO	16/0+00	24/47+00	9.6	67
MO Total(s)			46.6	330
Above Mound City, IL	0/0+00	1/48+00	1.8	18
Cairo, IL Parcel 5	6/17+00	8/9+00	2.0	14
IL Total(s)			3.8	32
Island 8, KY	3/76+70	16/37+82	12.5	121
KY Total(s)			12.5	121
All States Total(s)			224.7	1,300

Figure 1. List of Projects

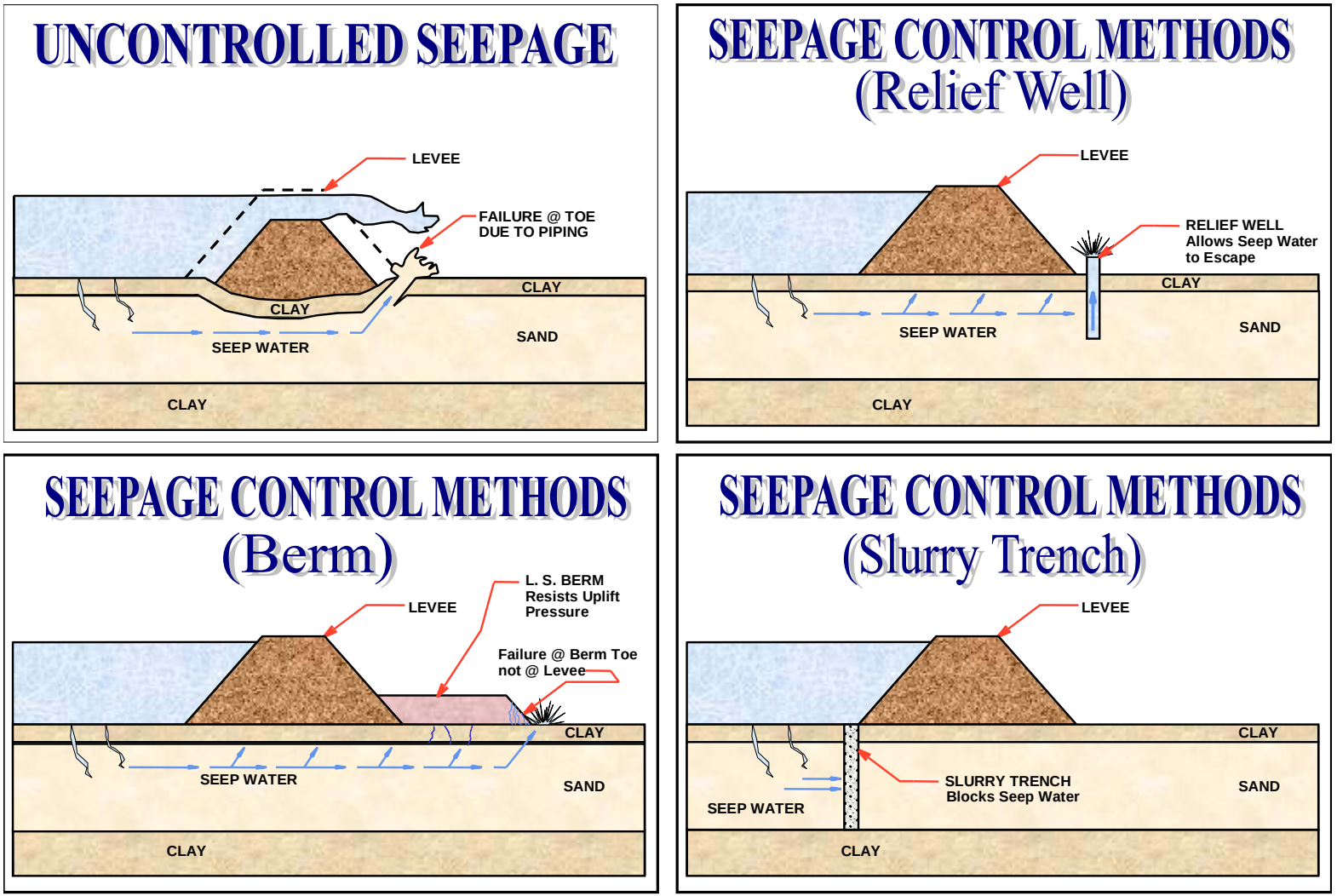

Figure 2. Typical Construction Alternatives